

Role of Under-Utilized Crops in Food Security, Nutrition and Resilience in Dry Corridor of Sri Lanka

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The world depends for its basic diet of carbohydrates, fats, and proteins on a very limited number of crop species. Underutilized crops species are often indigenous wild crop relatives which are still used at some level within the local, national or even international communities, but have higher potential to contribute to the food nutrition and security. Present approach is to identify the role of underutilized crops in food security, nutrition and resilience while developing food availability and food deserts maps to Uva and Eastern provinces. Mixed methods approach was employed and sample size was 450. Farm households were selected from each province. Key informant interviews, focus group discussions, interviewer administered questionnaires were main data collection tools. Maps of food deserts and food availability were developed through Arc GIS 10.4. Food availability map graphically illustrates the commercial crop growing areas and locations of food sources in each province. Food desert map highlighted the areas where consumers who did not have access, affordability and availability for food. Backyards and its underutilized crops bridge or reduce the food availability gap. Underutilized crops were playing a major role by providing diversified meal, while generating extra income (10,000-25,000 LKR/season). Multi-purpose backyard underutilized crops bring various benefits; diversified nutrients and meals, economical, eco-stability, contributed to gene pool. Sustainability index selected best crops for each district. Scoring technique was adopted to weigh each variable and total score were derived for each crop. There were 30 %-27 % of food deserts located in each province due to long distance to food sources, low household income levels, poor road access and not having own vehicles for transportation. Even though they did not have access for proper nutritious food consumption their backyard, endemic and natural underutilized crops provide considerable contribution to fulfill their nutrition needs and secure them with diversified daily food consumption.

Keywords: Food deserts, Food security, Sri Lanka, Underutilized crops